

Aero Design Ltd.

Work Order Control Sheet

Work Order#: 2015-130 Date Opened: 15 Dec 15 Title: Assembly

Aircraft OEM: Bell Aircraft Model: 206L/407 Product Type: Cargo Basket Product Model: Standard Quantity: 1

Work Order Contents

Work Order/Build Sheets (Procedures Provided)
Additional Work Sheets (Standard Practice)
Drawings (See List Below)
Parts Distribution Sheet
Sub Component Tags
Completed Certification
Time Sheet (R&D)
Notes

Initial or N/A

JR
N/A
JR
JR
N/A
N/A
N/A
N/A

Component Completion

Quantity Complete on This Work Order
Quantity Incomplete on This Work Order
Further Processing Required Before Release
Release to Stock as Components

As Instructed

1
N/A
N/A
N/A

Build Sheet Contents

Tasks Initialled
Dual Inspections Initialled

Initial or N/A

JR
JR

Certification

Form One Completed
Serviceable (Green) Tag Completed
In Process (Yellow) Tag Completed
Unserviceable (Red) Tag Completed
Parts Placed in Stores for Distribution

Initial or N/A

N/A
N/A
N/A
N/A
N/A

Drawing List

Drawing #	Rev #	Description	Initial or N/A
69810	3	Basket	JR
69811	3	Body	JR
69812	3	Lid	JR
69827	2	Data Plate	JR

Additional Documentation

Documentation of a minor change
Non-Conformance Report Required
Service Difficulty Report Required

Initial or N/A

N/A
N/A
N/A

Billing

Local (Aero Design)
Research and Development
Third Party

Initial or N/A

JR
N/A
N/A

Traveller

Install walkway on lid
Install lid on basket body
Re-tap mounting lug holes and install mount lugs
Install handle brackets
Install handle
Install lid prop
Install data plate

Initial or N/A

JR
JR
JR
JR
JR
JR
JR

Work performed by:

Print: Jason Rekve

Sign: Jason Rekve

SCA: AD01

Date: 15-Dec-15

ICC / Dual Inspection performed by:

Print: Jeff Clarke

Sign: Jeff Clarke

SCA: AD02

Date: 15-Dec-15

Work Order closed by:

Print: Jason Rekve

Sign: Jason Rekve

SCA: AD01

Date: 15-Dec-15

Approved Manufacturing Facility 73-04

Form 20.D.03

Rev. Original 23 Sep 2014



Aero Design Ltd.

9888 A Malaspina Rd., Powell River, BC
V8A 0G3, 604-483-AERO (2376)

Quantity: 1
PN: MS20001P4-7200
Aircraft: All
Description: Hinge
Supplier: Aircraft Spruce
Color: N/A
WO#: N/A

Model: All

PO# 15063



Aero Design Ltd.

9888 A Malaspina Rd., Powell River, BC
V8A 0G3, 604-483-AERO (2376)

Quantity:

1

PN:

Aluminum Checker plate

Aircraft:

All

Model: All

Description:

5 7/8" x 10', .065", pattern c102

Supplier:

Daigle Marine

Color:

N/A

WO#:

N/A

PO# 15056



Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: HANDLE ASSEMBLY No. of pieces: 1

Manufacturer: AERO DESIGN

Part No.: 84261-01 Serial No.: N/A

TTSN: N/A TSO: N/A Rem.: N/A

Work Order No.: 2016-52

Remaining Tasks to be Performed: NONE

Signature: [Signature]

Date: 06 MAY 2016

Lic. No. / SCA

Serviceable



Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Serviceable

Remarks

[illegible]



Aero Design Ltd.

9888 A Malaspina Rd., Powell River, BC
V8A 0G3, 604-483-AERO (2376)

Quantity:

1

PN:

69810-01

Aircraft:

Bell

Model:

206L/407

Description:

Basket Assembly (STD)

Supplier:

N/A

Color:

White

WO#:

2015-130

PO# N/A

CARGO BASKET ASSEMBLY - COMMON

Bell 407 std show

Complete
(initial or SCA #)

Work Order: 2015-130

Date Open: 15 Dec 15

OK

1. Lid Assembly

- a. Install lid bumpers on bottom.
 - i. Fill bumper holes with RTV silicone sealant.
 - ii. Insert 49205-14 lid bumper, 3 or 4 places per lid.
- b. Install placard on bracket on top of lid.
 - i. Locate placard on bracket.
 - ii. Drill #30 through placard and bracket, using holes in placard.
 - iii. Remove placard and de-burr holes in placard and on bracket.
 - iv. Locate placard on bracket, and cleco in place.
 - v. Rivet placard with four CR3213-4-02 CherryMax rivets.
- c. Option: Install walkway on top of lid (lid must be fitted with walkway provisions)
 - i. Note: avoid touching surface of tread plate with bare hands to prevent smudges or marks on the top surface.
 - ii. Pull tread plate from stock. Shear tread plate to length.
 - iii. De-burr edges of tread plate with scotch-brite disc on die-grinder.
 - iv. Locate tread plate on lid. Hold tread plate in place with bags of lead shot.
 - v. Mark and drill #30 holes:
 1. 0.25" from edge of tread plate, centre on cross members (0.38")
 2. 0.25" from edge of tread plate, middle of each walkway stringer
 - vi. De-burr and counter-bore (if required to provide clearance of rivet head on checker pattern) all holes in tread plate using 1/4" piloted counter bore on both sides.
 - vii. De-burr holes in lid tubes.
 - viii. Apply bead of RTV silicone sealant along all tubes under tread plate.
 - ix. Set tread plate in place, secure with clecos if necessary.
 - x. Rivet placard with CR3213-4-02 CherryMax rivets
- d. Record PO/WO of all parts (including lid) used in steps above on attached material tracking list.

OK

2. Body Assembly

- a. Install attachment fittings
 - i. Carefully remove excess powder coat from around attachment lug threads using a countersink.
 - ii. Run 3/8-24 tap into attachment lugs to clear threads.
 - iii. Apply anti-seize compound to attachment fittings 96710-01 (alternate: Ancra 40088-14)
 - iv. Install attachment fittings with two NAS1149F0363P washers in four lugs in basket.
 1. 90610 (Robinson R44) basket only:
 - a. Install 1 fitting 906?? in lower forward attachment lug only.
 - b. Install 3 96710-01 fittings in remaining locations.
 - v. Torque to ??

- b. 946 Basket Only: Install Cutout Brace – *must be completed after hinge installation*
- Locate 94621-01 Brace over aft cross tube cutout
 - Install two AN4-6A bolts and two AN4-30A bolts with NAS1149F0463P washers.
 - Torque AN4 bolts to ??
- c. Record PO/WO of all parts (including basket) used in steps above on attached material tracking list.

3. Hinge Installation

- a. Prepare hinge.
- Cut hinge to length:
 - 776, 906 – 54"
 - 751, 803 – 70"
 - 698, 764, 945 – 72"
 - 784 – 90"
 - 940, 946, 959 – 95"
 - Drill #30 pilot holes using hinge jig. For long hinges, flip at specified location on jig.
- b. Install hinge on basket
- Locate hinge on basket (standard baskets)
 - centre fore/aft
 - 0.15" – 0.18" up from bottom edge
 - Locate hinge on basket (extra wide baskets)
 - centre fore/aft
 - set hinge at 90 degrees (as if lid would be installed) using a small square, locate vertical side at 22.5" from outboard edge.
 - Drill #30 through holes in hinge into basket rim. Cleco in place with 1/8 (copper) clecos.
 - Drill holes up to #21 through hinge and rim. Replace 1/8 clecos with 5/32 (black) clecos.
 - Remove hinge and de-burr holes in hinge and basket rim.
 - Cleco hinge to basket with 5/32 clecos.
 - Install hinge with CherryMax rivets
 - CR3523-5-02 monel rivets – last 2 rivets in each end
 - CR3213-5-02 aluminum rivets – all other locations
- c. Install lid on basket
- Locate lid on hinge (all baskets)
 - center fore/aft
 - 0.15" – 0.18" down from top edge
 - Drill #30 through holes in hinge into lid rim. Cleco in place with 1/8 clecos.
 - Drill holes up to #21 through hinge and rim. Replace 1/8 clecos with 5/32 clecos.
 - Remove hinge and de-burr holes in hinge and lid rim.
 - Cleco lid to hinge with 5/32 clecos.
 - Install hinge with CherryMax rivets
 - CR3523-5-02 monel rivets – last 2 rivets in each end
 - CR3213-5-02 aluminum rivets – all other locations

CARGO BASKET ASSEMBLY - COMMON

Complete
(initial or SCA #)

- d. Record PO of hinge and rivets on attached material tracking list.

OK

4. Install Handle

a. Install handle brackets.

- i. Set 84267-01 handle bracket on provisions in hoops, 2 places.
- ii. Install AN3-11A bolt, NAS1149F0363P washer (2), MS21044N3 nut. Two places per bracket, two brackets per basket.
- iii. Torque AN3 bolts to ??.

b. Install handle

- i. Trim 36278-01R and 36278-01L springs to ensure end of spring does not extend past edge of handle bracket, approximately 1/8". Set springs over bushing of 84261-01 handle assembly.
- ii. Grease two 36275-01 bushings with ??. Insert into bushings of handle assembly.
- iii. Locate handle on basket lid. Insert AN3-12A bolt with NAS1149F0363P through bracket on lid and handle bushing on one end of handle.
- iv. On other end of handle, hook spring over catch rivet on handle assembly and use spring tool to twist spring to catch arm on bracket on lid while inserting AN3-12A bolt with NAS1149F0363P washer through lid bracket and handle bushing.
- v. At first end, remove bolt and repeat step iv.
- vi. Install NAS1149F0363P washer and MS21044N3 nut on both AN3-12A bolts.
- vii. Torque AN3 bolts to ??.

c. Check handle

- i. Operate handle to ensure handle does not bind and springs hold handle in.
- ii. Snap handle into brackets to ensure handle locks.

- d. Record PO/WO of all parts used in steps above on attached material tracking list.

OK

5. Install lid brace

- a. Locate 36280-01 lid brace on bushing in basket. Ensure brace is on forward end of basket as it will be installed on the helicopter.
- b. On lid end, insert AN970-3 washer into end of lid brace. Insert AN3-15A bolt with NAS1149F0363P washer through AN970-3 washer, lid prop, and lid bushing. Install NAS1149F0363P washer and MS21044N3 nut on bolt.
- c. On basket end, insert AN3-17A bolt with AN970-3 washer through lid prop and basket bushing. Install NAS1149F0363P washer and MS2144N3 nut on bolt.
- d. Ensure brace is seated on lip of bushings before tightening nuts.
- e. Torque AN3 bolts to ??
- f. Record PO/WO of all parts used in steps above on attached material tracking list.

CARGO BASKET ASSEMBLY - COMMON

Complete
(initial or SCA #)

JC.

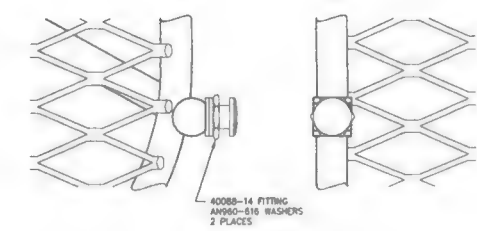
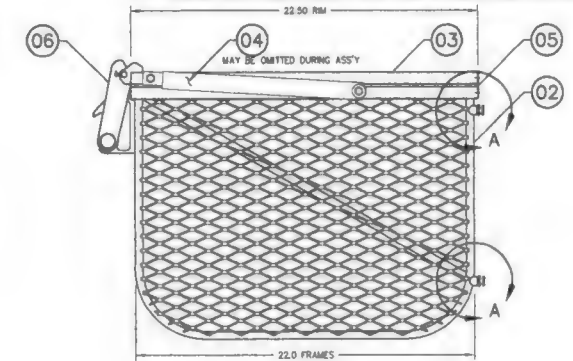
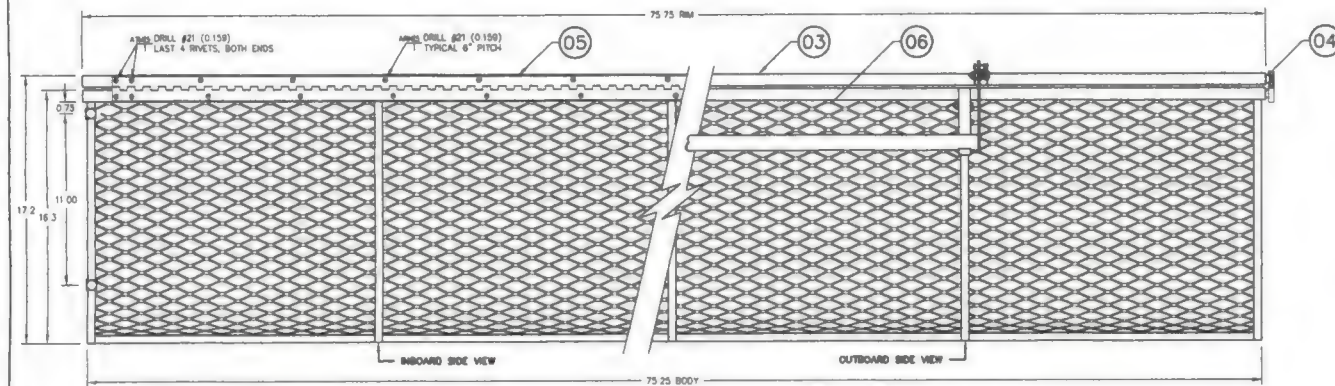
6. Final Inspection

Dual inspection by a different person than assembled the basket.

- a. Check for general condition and correct assembly:
 - i. Bolts are tight
 - ii. Rivets are installed correctly
 - iii. Handle operates correctly
 - iv. Lid brace operates correctly
- b. Check that PO/WO numbers have been recorded.

2015-130

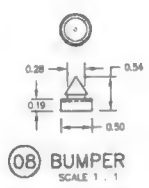
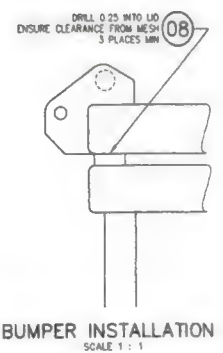
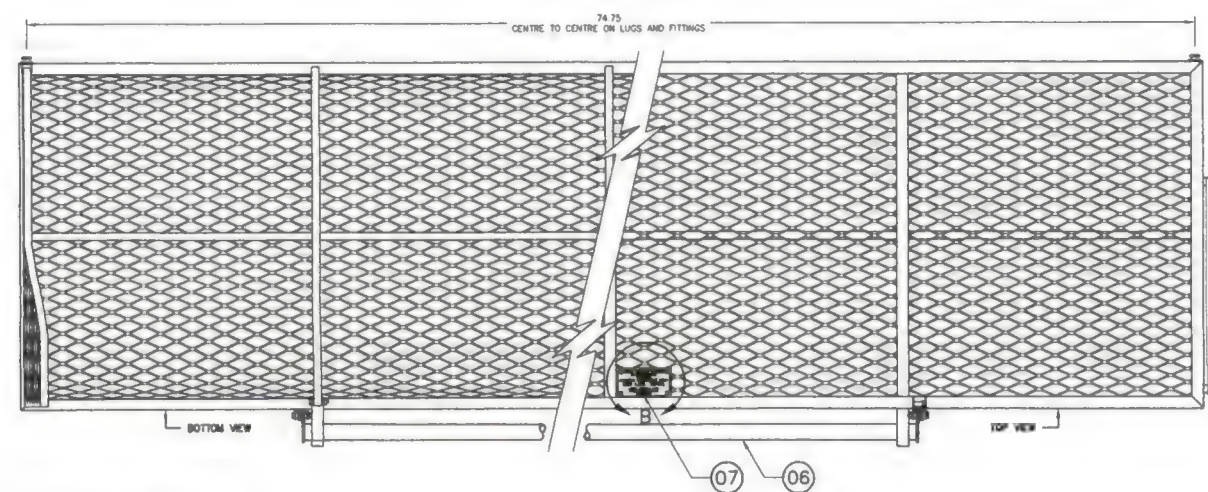
REV	DESCRIPTION OF CHANGE	INITIALS	DATE
1	CHANGED LUGS	BLC	08/11/2008
2	PLACARD CHANGED, AFT END MODIFIED FOR CROSS TUBE CLEARANCE	BLC	23/06/2009
3	HINGE RIVETS CHANGED, HANDLE DETAILS CHANGED, PLACARD CHANGED	BLC	14/10/2011



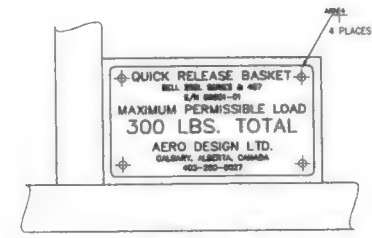
DETAIL A

SCALE 1 : 1
LOOKING AT LOWER ATTACHMENT, UPPER ATTACHMENT SIMILAR
TYPICAL FRONT AND REAR

NOTE:
1. ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY. DIMENSIONS OF COMPONENTS
AND COMPLETE ASSEMBLY ARE DETERMINED IN PREVIOUS STEPS.



01 CARGO BASKET ASSEMBLY



DETAIL B
SCALE 1 : 1
LOOKING AT PLACARD BRACKET

A/R	AN960-616	WASHER				
4	4008B-14	FITTING	ANCHR			
4	CR3213-4-02	CHERRY RIVET				
8	CR3213-5-02	CHERRY RIVET				
A/R	CR3213-5-02	CHERRY RIVET				
3	49205-14	BUMPER	ARGUS INDUSTRIES			
1	69827-01	07 PLACARD				
1	84255-01	06 HANDLE BAR INSTALLATION				
1	MS2000P4	03 PLANO HINGE			6 FEET LONG	
1	36280-01	04 BRACE ASSEMBLY				
1	69812-01	03 LID ASSEMBLY				
1	69811-01	02 BASKET BODY ASSEMBLY				
1	69810-01	01 CARGO BASKET ASSEMBLY				
QTY	PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE
				LIST OF MATERIALS		

BASIC CODE
REF: NAS 523

DASH NO. FOR DIAMETER
H=HFD HEAD NEAR SIDE
F=HFD HEAD FAR SIDE

DASH NO. FOR LENGTH

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ON:
DECIMALS ANGLES
X.XXX ±0.010 ±1/2°
X.XX ±0.03
X.X ±0.1

INSTALL NEW RIVET
REMOVE/REPLACE RIVET
EXISTING RIVET

APPROVALS
JEFF CLARKE 11 APR 2006
E BURGIN

DATE

LIST OF MATERIALS

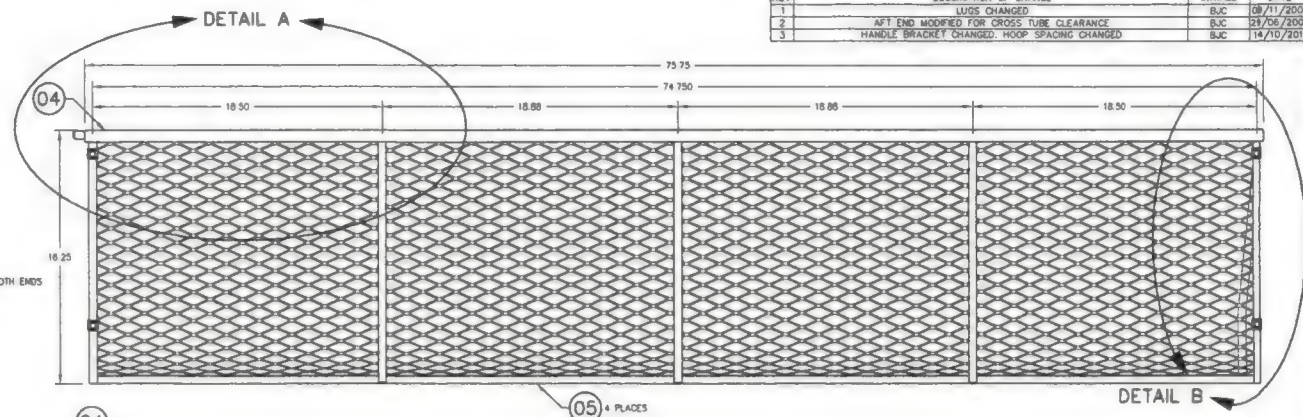
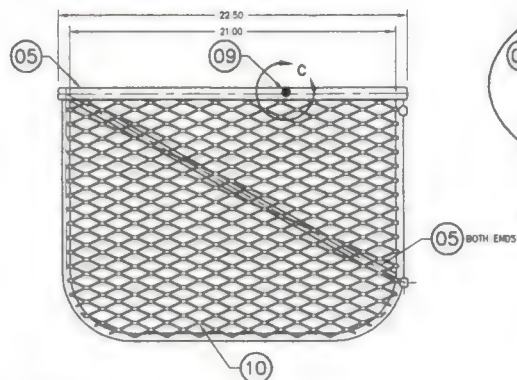
AERO DESIGN LTD.
CONSULTING ENGINEERS, TRANSPORT CANADA APPROVALS, DAB 290M
2013 - 50TH AVENUE N.E., CALGARY, ALBERTA, CANADA, T2E 6R7
Tel: (403) 880-8887 Fax: (403) 880-8888 aerodesign@telusnet.net

BELL 206L, 407
QUICK RELEASE CARGO BASKET
CARGO BASKET ASSEMBLY

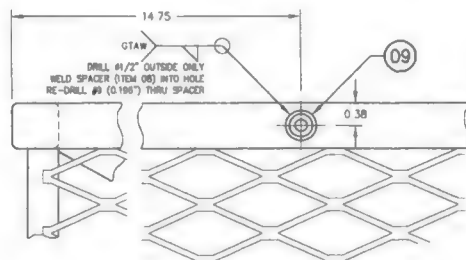
SCALE 1 : 4
SHEET 1 OF 1

QTY SIZE DWG NO. REV
A1 69810 3

REV	DESCRIPTION OF CHANGE	INITIALS	DATE
1	LUGS CHANGED	BUC	08/11/2008
2	AFT END MODIFIED FOR CROSS TUBE CLEARANCE	BUC	23/06/2009
3	HANDLE BRACKET CHANGED, HOOP SPACING CHANGED	BUC	14/10/2013

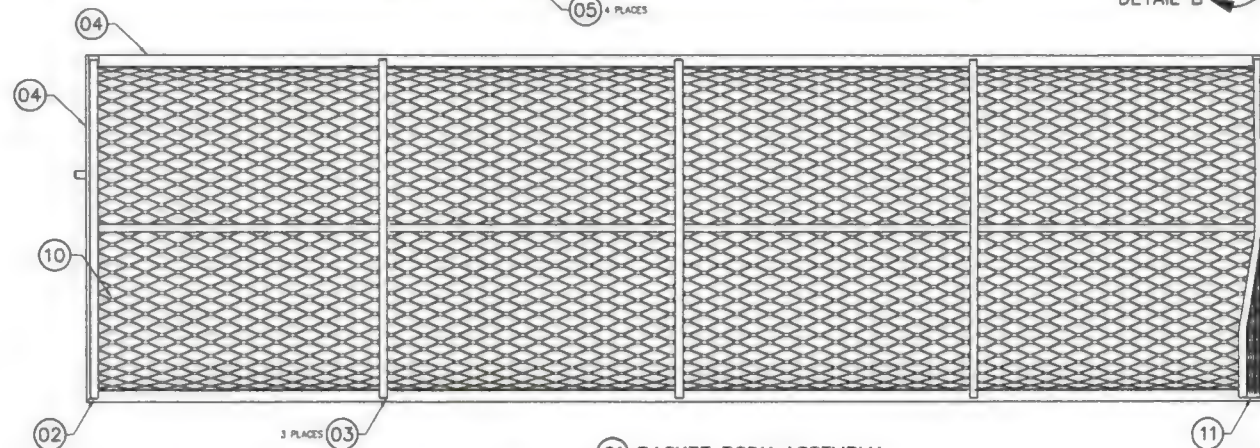


- NOTES:
1. REMOVE ALL BURRS AND BREAK SHARP EDGES
 2. WELDING OF 4130 STEEL TO BE COMPLETED BY GTAW METHOD TO AMS 2885C
 3. WELDING ROD SHALL CONFORM TO ER70S-2 OR EQUIVALENT
 4. WHEN ASSEMBLY IS COMPLETE, FILL ALL VENT HOLES WITH ROSETTE WELD.
 5. THOROUGHLY CLEAN AND POWDER COAT BASKET SUB-ASSEMBLIES PRIOR TO ASSEMBLY

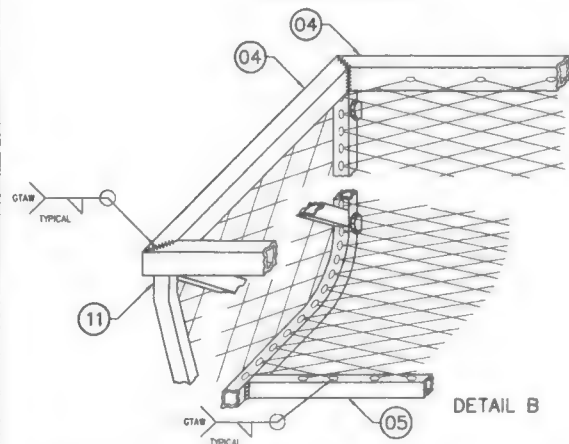


DETAIL C

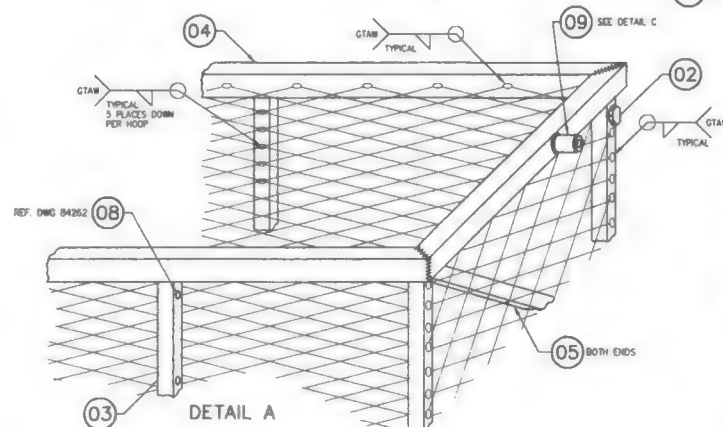
SCALE 1:1
VIEW LOOKING AT FRONT RIM OF BASKET



01 BASKET BODY ASSEMBLY



DETAIL B



DETAIL A

QTY	PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE
1	69822-01	11	AFT END HOOP	STEEL	COMMERCIAL	
A/R	3/4-16F	10	MESH			
1	49215-01	8	SPACER			
1	84262-01	08	HANDLE BRACKET ASSEMBLY			
1	07					
1	06					
A/R	05	TUBE	4130 STEEL COND N	MIL-T-8736	0.5 X 0.035 SQR. TUBE	
A/R	04	TUBE	4130 STEEL COND N	MIL-T-8736	0.75 X 0.035 SQR. TUBE	
1	49210-02	03	HOOP			
1	69821-01	02	FORWARD END HOOP			
1	69811-01	01	BASKET BODY ASSEMBLY			

APPROVALS		DATE	AERO DESIGN LTD.	
DRAWN	JEFF CLARKE	11 APR 2006	CONSULTING ENGINEERS, TRANSPORT CANADA APPROVALS, DAR 280M	
CHECKED	E. BURGOIN		8013 - 30TH AVENUE N.E., CALGARY, ALBERTA, CANADA, T2E 6B7	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON:			BELL 206L 407 QUICK RELEASE CARGO BASKET BASKET BODY ASSEMBLY	
DECIMALS	ANGLES		SCALE 1:4	DWG NO.
X.XXX ±0.010	±1/2°		SHEET 1 OF 1	REV
X.XX ±0.03			A1	69811
X.X ±0.1				3

NOTICE

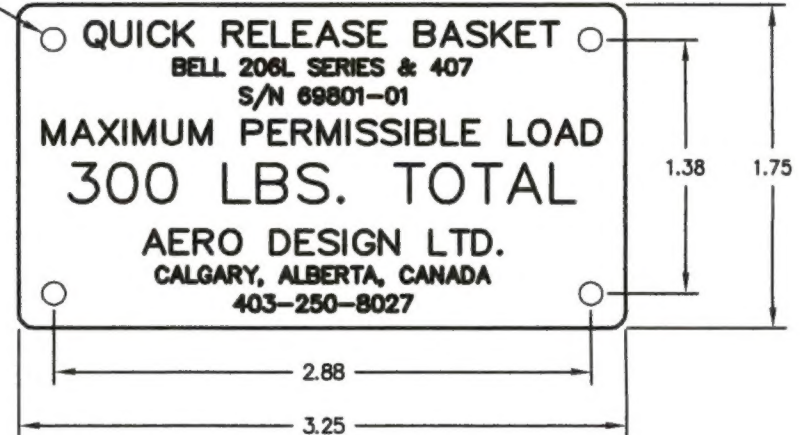
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REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
1	CHANGED TO ENGRAVED ALUMINUM	BJC	19 JUNE 2007
2	INCREASED LOAD	BJC	26 OCT 2011

NOTES

- ENGRAVE 0.007 DEEP AS FOLLOWS:
 "QUICK RELEASE BASKET" - 0.125 HIGH
 "BELL 206L SERIES & 407" - 0.080 HIGH
 "S/N 69801-XX" - 0.080 HIGH
 "MAXIMUM PERMISSIBLE LOAD" - 0.125 HIGH
 "300 LBS. TOTAL" - 0.200 HIGH
 "AERO DESIGN LTD." - 0.125 HIGH
 "CALGARY, ALBERTA, CANADA" - 0.080 HIGH
 "403-250-8027" - 0.080 HIGH

DRILL #30 (0.129)
4 PLACES



01 PLACARD

1	69827-01	01	PLACARD	6061-T6 ALUMINUM	QQ-A-250/11	0.063 SHEET
01	PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE
QTY	LIST OF MATERIALS					
			APPROVALS	DATE	AERO DESIGN LTD. CONSULTING ENGINEERS, TRANSPORT CANADA APPROVALS, DAR 290M 2013 - 39TH AVENUE N.E., CALGARY, ALBERTA, CANADA, T2E 6R7 tel: (403) 250-8027 fax: (403) 250-8333 aerodesign@telusplanet.net	
			DRAWN: JEFF CLARKE	24 APR 2006		
			CHECKED: E. BURGOIN			
			UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON: DECIMALS ANGLES X.XXX ±0.010 ±1/2" X.XX ±0.03 X.X ±0.1		BELL 206L SERIES AND 407 QUICK RELEASE CARGO BASKET PLACARD	
			SCALE 1 : 1	DWG. SIZE	DWG. NO.	REV.
			SHEET 1 OF 1	A4	69827	2



WO#

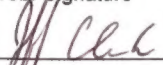
Rev. Original 27 May 2013



WO# 2015-130

Approved Manufacturing Facility 73-04

Rev. Original 27 May 2013

1. Approving Civil Aviation Authority/Country Transport Canada		2. AUTHORIZED RELEASE CERTIFICATE FORM ONE			3. Form Tracking No. 2016-0092
4. Organization Name and Address AERO Design Ltd. – 9888A Malaspina Road, Powell River, BC, V8A 0G3					5. Work Order/Contract/Invoice WO 2015-130
6. Item	7. Description Cargo Basket	8. Part Number 69810-01	9. Qty. 1	10. Serial/Batch No. 69801-82	11. Status/Work New
12. Remarks Modified with Lid Step and Front End Cutout IAW DCL704					
13a. Certifies that the items identified above were manufactured in conformity to: <input checked="" type="checkbox"/> Approved design data and are in condition for safe operation. <input type="checkbox"/> Non approved design data specified in block 12.			14a. <input type="checkbox"/> CAR 571.10 Maintenance Release <input type="checkbox"/> Other regulation specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, has been performed in compliance with the Canadian Aviation Regulations.		
13b. Signature  AD 73-04 02		13c. Approved Organization Number AMF 73-04		14b. Signature	
13d. Name Jeff Clarke - AD02		13e. Date (dd/mm/yyyy) 29 June 2016		14c. Approved Organization Number	
				14d. Name	
				14e. Date (dd/mm/yyyy)	
<p align="center">Installer Responsibilities</p> <p>This certificate does not constitute authority to install.</p> <p>Installers working in accordance with the national regulations of a country other than that specified in block 1 must ensure that their regulations recognize certifications from the country specified.</p> <p>Statements in blocks 13a or 14a do not constitute installation certification. In all cases, the technical record for the aircraft must contain an installation certification issued in accordance with the applicable national regulations before the aircraft may be flown.</p>					

HELI DYNAMICS